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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,991	10/04/2001	Kyu-Nam Lim	AB-984-1C US	5338

24251 7590 09/11/2002

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EXAMINER

NGUYEN, LINH M

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,991

Applicant(s)

LIM, KYU-NAM

Examiner

Linh M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 7 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Upon reviewing the Office Action mailed 6/04/2002, an inadvertent processing mistake has been found; in particular, the content therein belongs to another application. As such, that Office action is not valid. An apology is hereby extended for any confusion having been caused.

This Office Action is a reply to the Applicant's response submitted on 4/10/2002, and the response period is set to restart within three months from the mailing date of this Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Pryor (U.S. Patent No. 3,991,380).

With respect to claims 1, 4, 8, and 12, Figure 2 of Pryor shows an input buffer circuit comprising a) a first inverting switch [10] connected to a first input voltage [11] and outputting a self bias signal [12]; b) a second inverting switch [20] connected to a second input voltage [21] and outputting an output signal [22]; c) a gain control unit [50, P8, N8] having a feedback loop [path 22-52] for gain control responsive to the self bias signal [12] (*via 51*) and the output signal; d) a current controlling circuit [30,40] that supplies current to the first inverting switch, the second inverting switch and the gain control unit, sinks current from the first inverting switch,

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the second inverting switch and the gain control unit, and responds to the self bias signal; and e) a swing width control circuit connected to a feedback signal that is inverted by the output signal.

With respect to claims 2, 5, and 9, Fig. 2 of Pryor shows that the gain control unit comprises a) a first PMOS transistor [P5] having a source connected to a first node, a drain connected to the self bias signal, and a gate connected to the output signal; b) a first NMOS transistor [N5] having a source connected to a second node, a drain connected to the self bias signal, and a gate connected to the output signal; c) a second PMOS transistor [P6] having a source connected to the first node, a drain connected to the output signal and a gate connected to the self bias signal; and d) a second NMOS transistor [N6] having a source connected to the second node, a drain connected to the output signal, and a gate connected to the self bias signal.

With respect to claims 3, 6, and 10, Fig. 2 of Pryor shows that the gain control unit further comprises: a) a third PMOS transistor [P8] having a source connected to the first node, a gate and a drain connected to the self bias signal; and b) a third NMOS transistor [N8] having a source connected to the second node, a gate and a drain connected to the self bias signal.

Allowable Subject Matter

Claims 7 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art of record does not show or fairly suggest (1) the current controlling circuit being comprised of: a) a third PMOS transistor having a source connected to the first node, a drain connected to the gain control unit to supply current and a gate connected to the self bias signal; and b) a third NMOS transistor having a source connected to the second node, a drain

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connected to the gain control unit to sink current and a gate connected to self bias signal, as called for in claim 7, and (2) the width control circuit being comprised of : a) an NMOS transistor having a source connected to the gain control unit, a drain connected to the gain control unit and a gate connected to the feedback signal; and b) a PMOS transistor having a source connected to the output signal, a drain connected to the gain control unit and a gate connected to the feedback signal, as called for in claim 11.

Remarks and Conclusion

Applicant's arguments filed 4/10/2002 have been fully considered but they are not persuasive.

With respect to Applicant's argument on page 5, last paragraph, Applicant argues that Pryor fails to teach a self-bias signal. The Examiner disagrees since Pryor, in Fig. 2, teaches that an output terminal [12] is an output of the inverter [10] and also is an input to node 51, which would be considered as a self bias signal for the inverters [P5,N5 and P6,N6] in block [50] by an artisan in the art. Applicant also stated that Pryor fails to teach a first inverting switch connected to a first input voltage and outputting a self bias signal, and a gain control unit having a feedback loop for gain control and responding to the self bias signal and the output signal. As shown in Fig. 1, Pryor clearly teaches a first input voltage and outputting a self bias signal (as stated above), and a gain control unit [50] having a feedback loop [22-52 path] for gain control and responding to the self bias signal and the output signal [22]. As such, the rejections of claims 1,4,8, and 12 still stand.

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In regard to responding to office actions, all responses should be indicated with Serial No. 09/971,991 instead of 09/574,306 (of the parent application).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (703) 305-0414. The examiner can normally be reached on Alternate Mon, Tuesday - Friday from 7:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (703) 308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

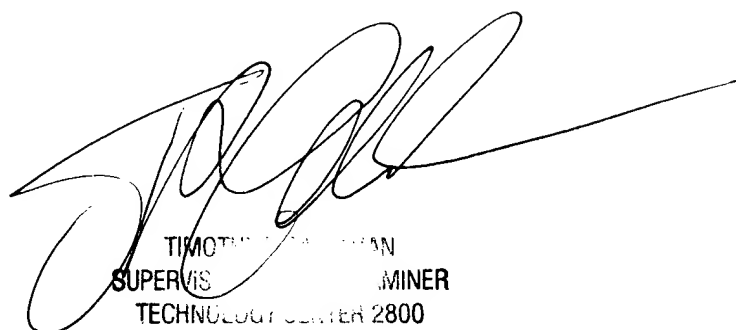
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Linh M. Nguyen



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